

18. The system of Claim 11, a gate valve assembly disposed on said transport module to isolate said wafer processing system.

19. The system of Claim 11, wherein said container comprises a wafer cassette.

REMARKS

Claims 1-3 and 5-19 are pending in the Office Action. Claims 1, 9, 10 and 11 have been amended. Claim 4 has been canceled. Applicants respectfully request reconsideration and reexamination of the pending claims.

Claims 1-3, 5-7, 11-13, 15, 16 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Beaulieu et al. (USPN 5,882,413). Claims 4, 10, and 14 under 35 U.S.C. 103(a) as being unpatentable over Beaulieu et al and further in view of Gordon et al. Claims 8 and 17 under 35 U.S.C. 103(a) as being unpatentable over Beaulieu et al., and further in view of Moore et al. Claims 9 and 18 under 35 U.S.C. 103(a) as being unpatentable over Beaulieu et al. and further in view of Yonemitsu et al. Applicant respectfully overcomes the rejections for the reasons below.

Claims 1 and 10 set forth a method including “extending a semiconductor wafer transport device from said transport module into an adjacently positioned Front Opening Unified Pod (FOUP) while said FOUP remains a separate component from said processing system” and “extending a robot including an extendible robotic arm from said transport module into an adjacently positioned Front Opening Unified Pod (FOUP) while said FOUP remains a separate component from said processing system,” respectively. The Examiner has correctly noted that “Beaulieu et al. [does] not teach a container holding the wafers that is a FOUP.” (Office Action dated March 28, 2002, p.4)

As claimed, the FOUP is a separate component from the processing system and remains a separate component from the processing system while a transport device or robot is passed between the FOUP and processing system. Applicant could find no teaching or suggestion in Beaulieu et al. that discloses such a feature.

Applicant submits that Gordon et al. fails to correct this deficiency. As the Examiner points out “Gordon et al. teach a FOUP (22) and a docking device (20) that is made to be mounted on a semiconductor processing system.” (Id.) Gordon et al. discloses that the

“FOUP 22 abuts with and seals against the bulkhead 24” (Gordon et al., col. 4, lines 63-64) and that the “bulkhead 24 [] mates with and seals to semiconductor processing equipment...” (Gordon et al. col. 4, lines 42-43)

Clearly, Gordon et al. discloses that the FOUP and semiconductor processing equipment are to be mated together during operation of the processing system, and thus while a transport device is passed therebetween. In contrast, Claims 1 and 10 set forth that the processing system and FOUP are to remain separate components while extending a transport device therebetween. Accordingly, since Gordon et al. discloses mounting a FOUP to semiconductor processing equipment, the combination of Beaulieu et al. and Gordon et al. do not arrive at Applicant’s Claims 1 and 10. Thus, Claims 1 and 10 are allowable over Beaulieu et al. alone and in view of Gordon et al.

Claim 11 sets forth a system including “a container configured to house a plurality of semiconductor wafers said container being a separate and uncoupled component from said processing system, said semiconductor wafer transport device being configured to extend into said container from said transport module while said container remains separate and uncoupled from said processing system....”

In contrast, Beaulieu et al. discloses “[t]he apparatus 10 includes a main section 12, substrate processing modules 14, substrate load lock modules 16, and an atmospheric section 17. The atmospheric section 17 includes means for holding cassettes of substrates and a robot (not shown) for moving the substrates into and out of the load locks 16.” (Beaulieu et al. col. 3, lines 32-37) Although Beaulieu et al. does disclose that the robot arm with “holders 29 can be moved through the doorways 21 into and out of the modules 14, 16 to move the substrate S into and out of the modules 14, 16,” there is no teaching or suggestion that the robot arm is configured to extend from the main section into the atmospheric section or any other container that is a separate and uncoupled container. Accordingly, Claim 11 is allowable over Beaulieu et al.

Claims 2-3 and 5-9 depend from Claim 1 and are therefore allowable for at least the same reasons as Claim 1. Claims 12-19 depend from Claim 11 and are therefore allowable for at least the same reasons as Claim 11.

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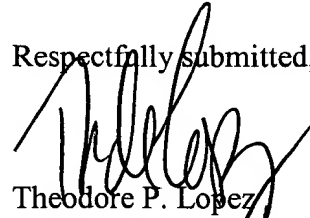
CONCLUSION

For the above reasons, pending Claims 1-3 and 5-19 are now in condition for allowance and allowance of the application is hereby solicited. If the Examiner has any questions or concerns, the Examiner is hereby requested to telephone Applicant's Attorney at (949) 752-7040.

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Respectfully submitted,



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ATTACHMENT A

1. (Amended) A method for transporting semiconductor wafers comprising:
providing a processing system including a transport module and process chamber;
extending a semiconductor wafer transport device from said transport module into an
adjacently positioned **[container, said container being]** Front Opening Unified Pod (FOUP)
while said FOUP remains a separate component from said processing system; and
removing at least one semiconductor wafer from said FOUP **[container]** using said
wafer transport device.

Please cancel Claim 4.

9. (Amended) The method of Claim 1, further comprising opening a gate valve
to allow said wafer transport device to extend out from said transport module and into said
FOUP **[container]**.

10. (Amended) A method for transporting a semiconductor wafer comprising:
providing a processing system including a transport module and a semiconductor
wafer process chamber;
extending a robot including an extendible robotic arm from said transport module into
an adjacently positioned Front Opening Unified Pod (FOUP)[,] while said FOUP remains
[being] a separate component from said processing system, said robot being at a fixed
location;
removing at least one semiconductor wafer from said FOUP and placing said at least
one semiconductor wafer in said semiconductor wafer process chamber using said extendible
robotic arm.

11. (Amended) A system for transporting semiconductor wafers comprising:
a processing system including a transport module and a process chamber;
a semiconductor wafer transport device disposed in said transport module; and
a container configured to house a plurality of semiconductor wafers said container
being a separate and uncoupled component from said processing system, said semiconductor
wafer transport device being configured to extend into said container from said transport

module while said container remains separate and uncoupled from said processing system and said semiconductor wafer transport device being configured to deliver said semiconductor wafer to said process chamber.

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